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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

Riazi 8-20-7

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on April 12, 2006

Signature

Bobbette A. BlakeTyped or printed
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Application Number

10/763,595

Filed

January 23, 2004

First Named Inventor

Riazi et al.

Art Unit

2663

Examiner

Duc T. Duong

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐

applicant/inventor.

☐

assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)☒

attorney or agent of record.

Registration number 36,597☐

attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____

Kevin M. Mason

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203-255-6560

Telephone number

April 12, 2006

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☐

*Total of _____ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Riazi 8-20-7

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Applicant(s): Riazi et al.
Case: 8-20-7
Serial No.: 10/763,595
Filing Date: January 23, 2004
Group: 2663
Examiner: Duc T. Duong

I hereby certify that this paper is being deposited on this date with the U.S. Postal Service as first class mail addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Signature: *Robert B. Bluff* Date: April 12, 2006

Title: Method and Apparatus for Identifying an Orthogonal Frequency Division Multiplexing (OFDM) Terrestrial Repeater Using Inactive Sub-Carriers

REMARKS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In the final Office Action, the Examiner again rejected claims 1, 2, 6-10, 14-18, 21-25, and 28-30 under 35 U.S.C. §102(e) as being anticipated by Schafer et al. (United States Patent Number 6,134,267). Claims 3-5, 11-13, 19, 20, 26, and 27 are allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

Independent Claims 1, 9, 17 and 24

Independent Claims 1, 9, 17, and 24 were rejected under 35 U.S.C. §102(e) as being anticipated by Schafer et al.

The present invention is directed to techniques for transmitting an identifying signal in an orthogonal frequency division multiplexing system. Each independent claim generally requires transmitting (or receiving) an "identifying signal on inactive sub-carriers, wherein the identifying signal identifies a transmitter."

Regarding the transmitter claims 1 and 9, for example, the Examiner asserts that Schafer teaches “means 8 for inserting an identifying signal TII on inactive sub-carriers (*citing* col. 1, lines 31-35; the TII signal is inserted in a null symbol (inactive sub-carriers)).”

Applicants note that Schafer teaches that the “method to detect transmitter
5 identification information in a DAB stream according to the present invention comprises the following steps: a) differential demodulation of TII pairs included in the spectrum of every second **null symbol** of the incoming DAB stream to respectively obtain a demodulated null symbol spectrum.” (Col. 2, lines 35-41; emphasis added.)

In one preferred embodiment, the present invention makes use of inactive sub-carriers
10 at the edges of the information carrying sub-carrier groups to transmit the TII. When discussing “sub-carriers,” it is clearly in the frequency domain. Thus, the exemplary embodiment of the present invention can be viewed as transmitting TTAAAAAAAAATT, where frequency is along the horizontal axis, A corresponds to the active (information carrying) sub-carriers, and T is the TII carrying sub-carriers that were previously inactive and now have been activated in accordance with
15 the present invention. In the time domain, the sequence would be: TTAAAAAAAAATT in the first time slot, TTAAAAAAAAATT in the second time slot, and TTAAAAAAAAATT in the third time slot. Thus, in each time interval, the inactive sub-carriers at the edges (i.e., first two and last two sub-carriers) carry the TII identifier.

The transmission in the frequency domain over time, according to the cited ETS
20 standard, on the other hand, can be viewed as transmitting AAAAAAAAAA at time 1; 000000000000 at time 2; and AAAAAAAAAA at time 3. Thus, the second time interval constitutes a null symbol. This is the sequence of symbols (in time) with each symbol written out as frequency content. Schaffer proposes to insert TII pairs in the spectrum of every second **null symbol**. Thus, the frequency domain over time, according to Schaffer, can be viewed as transmitting AAAAAAAAAA at
25 time 1; 0000000TT00000000 at time 2; and AAAAAAAAAA at time 3. Thus, Schaffer takes the null symbols (i.e., where all sub-carriers were muted according to the ETS standard) and then inserts the TII on one or more of the **active** sub-carriers. The sub-carriers that carry the TII for the null symbol carry data in other time intervals.

As set forth in the present specification, at page 3, line 9, inactive sub-carriers are the “**unused**” sub-carriers, as would be apparent to a person of ordinary skill in the art.

Each independent claim generally requires transmitting (or receiving) an “identifying signal on *inactive* sub-carriers, wherein the identifying signal identifies a transmitter.”

5 The transmission of a TII during a null symbol does not infer that the transmission of the symbol is performed utilizing inactive sub-carriers, as would be apparent to a person of ordinary skill in the art. In fact, the sub-carriers in Schaffer that carry the TII during the null symbol carry data in other time intervals.

10 Schafer does not disclose or suggest transmitting or inserting an identifying signal on *inactive sub-carriers*, as defined in the present invention and as would be apparent to a person of ordinary skill in the art. Independent claims 1 and 9 require transmitting or inserting “an identifying signal on inactive sub-carriers, wherein said identifying signal identifies a transmitter,” and independent claims 17 and 24 require “identifying signal received on inactive sub-carriers, wherein said identifying signal identifies a transmitter.”

15 Dependent Claims 2-8, 10-16, 18-23 and 25-30

Dependent Claims 2, 6-8, 10, 14-16, 18, 21-23, 25 and 28-30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sayeed in view of Schafer et al.

20 Claims 2-8, 10-16, 18-23 and 25-30 are dependent on claims 1, 9, 17, and 24, respectively, and are therefore patentably distinguished over Schafer et al. because of their dependency from independent claims 1, 9, 17, and 24 for the reasons set forth above, as well as other elements these claims add in combination to their base claim. The Examiner has already indicated that claims 3-5, 11-13, 19, 20, 26, and 27 would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

25 All of the pending claims, i.e., claims 1 through 30, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The attention of the Examiner and the Pre-Appeal Review Committee to this matter is appreciated.

Respectfully submitted,



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Date: April 12, 2006